

Notice of Allowability

Application No.

10/627,688

Examiner

Joseph W. Drodge

Applicant(s)

KATO ET AL.

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed on June 5, 2007.
2. ☒ The allowed claim(s) is/are 6-47, now renumbered claims 1-42.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 0107,0407
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20070716
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michelle Lester on July 16, 2007.

The application has been amended as follows: Claim 6 has been amended as follows:

6. (Currently amended) A pump module comprising:
a fuel pump having a center axis of an outer circumference;
a fuel filter including a filter casing and a filter element, the filter casing having an outer circumference;
a pressure regulator for regulating pressure of fuel discharged from the fuel pump through the fuel filter; and
a check valve for preventing the fuel from flowing back to the fuel pump, the fuel being discharged from the fuel pump,

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wherein the check valve is disposed on an upstream side of the fuel filter so that the check valve stops fuel flow from the downstream side to the upstream side,

wherein the fuel pump includes a discharge portion having an inner circumference for discharging the fuel,

wherein the filter casing covers at least a part of the outer circumference of the fuel pump,

wherein the filter element is accommodated in the filter casing, and eliminates contaminants in the fuel discharged from the fuel pump,

wherein the fuel filter includes a fuel inlet, which is engaged to the side of the inner circumference of the discharge portion in the center axial direction of the fuel pump and an O-ring disposed on a downstream side of the check valve,

wherein the check valve is accommodated in an inner surface of the fuel inlet of the fuel filter,

wherein the fuel inlet of the fuel filter is accommodated within the inner circumference of the discharge portion of the fuel pump,

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wherein the O-ring seals between the discharge portion of the fuel pump and the fuel inlet of the fuel filter],

wherein the check valve is disposed in the filter casing, and

wherein a part of the check valve enters into an inside of the fuel pump in such a manner that a center axis of the check valve is parallel to the center axial direction of the fuel pump]. --

Claim 25 has been amended as follows: --

25. (Currently amended) A pump module accommodated in a fuel tank and comprising:

a fuel pump having a center axis of an outer circumference;

a fuel filter including a filter casing and a filter element, the filter casing having an outer circumference;

a suction filter disposed on an upstream side of the fuel pump; and

a pressure regulator for regulating pressure of fuel discharged from the fuel pump through the fuel filter,

wherein the fuel filter is disposed on a downstream side of the fuel pump,

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wherein the filter casing covers at least a part of the outer circumference of the fuel pump,

wherein the filter element is accommodated in the filter casing, and eliminates contaminants in the fuel discharged from the fuel pump,

wherein the pressure regulator is disposed radially outside the outer circumference of the filter casing,

wherein the pressure regulator includes a regulator inlet for receiving the fuel filtered by the fuel filter, the regulator inlet connecting to a passage of the fuel filter,

wherein a part of the pressure regulator is disposed in a projection region of the filter casing, the projection region being provided by projecting the filter casing in the center axial direction of the fuel pump

wherein [the] a check valve is disposed in [a fuel filter inlet of] the filter casing which is accommodated within a discharge portion of the fuel pump], and

wherein a part of the check valve enters into an inside of the fuel pump in such a manner that a center axis of the check valve is parallel to the center axial direction of the fuel pump]. --

Claim 26 has been amended as follows: --

26. (Currently amended) A pump module accommodated in a fuel tank and comprising:

a fuel pump having a center axis of an outer circumference;

a fuel filter including a filter casing and a filter element, the filter casing having an outer circumference;

a suction filter disposed on an upstream side of the fuel pump; and

a pressure regulator for regulating pressure of fuel discharged from the fuel pump through the fuel filter,

wherein the fuel filter is disposed on a downstream side of the fuel pump,

wherein the filter casing covers at least a part of the outer circumference of the fuel pump,

wherein the filter element is accommodated in the filter casing, and eliminates contaminants in the fuel discharged from the fuel pump,

wherein the pressure regulator is disposed radially outside the outer circumference of the filter casing,

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wherein the pressure regulator includes a regulator inlet for receiving the fuel filtered by the fuel filter, the regulator inlet connecting to a passage of the fuel filter,

wherein the length of the pressure regulator in the center axial direction of the fuel pump is longer than a distance between a bottom surface of the filter casing and an inner bottom surface of the fuel tank,

wherein the fuel pump sucks accumulated fuel in the fuel tank,

wherein [the] a check valve is disposed in [**a fuel filter inlet of**] the filter casing **which is accommodated within a discharge portion of the fuel pump** [, and

wherein a part of the check valve enters into an inside of the fuel pump in such a manner that a center axis of the check valve is parallel to the center axial direction of the fuel pump]. --

Claim 27 has been amended as follows: --

27. (Currently amended) A pump module accommodated in a fuel tank and comprising:

a fuel pump having a center axis of an outer circumference;

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a fuel filter including a filter casing and a filter element, the filter casing having an outer circumference;

a suction filter disposed on an upstream side of the fuel pump; and

a pressure regulator for regulating pressure of fuel discharged from the fuel pump through the fuel filter,

wherein the fuel filter is disposed on a downstream side of the fuel pump,

wherein the filter casing covers at least a part of the outer circumference of the fuel pump, and is disposed around the center axis of the fuel pump,

wherein the filter element is accommodated in the filter casing, and eliminates contaminants in the fuel discharged from the fuel pump, and

wherein the pressure regulator is disposed radially outside the outer circumference of the filter casing,

wherein the pressure regulator includes a regulator inlet for receiving the fuel filtered by the fuel filter, the regulator inlet connecting to a passage of the fuel filter,

wherein [the] a check valve is disposed in [a fuel filter inlet of] the filter casing which is accommodated within a discharge portion of the fuel

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pump [, and


wherein a part of the check valve enters into an inside of the fuel pump in such a manner that a center axis of the check valve is parallel to the center axial direction of the fuel pump]. --

The following is an examiner's statement of reasons for allowance: Claims 1,25,26 and 27 are each now deemed to distinguish over the prior art, and Izutani or record in particular, in view of respective recitations of the fuel inlet of the fuel filter, that accomodates the check valve, being accommodated within the inner circumference of the discharge portion of the fuel pump. Such recitations were present in claim 1 prior to the latest Amendment. A further review of Izutani indicates that in such prior art, the fuel filter inlet containing the check valve accommodates the discharge portion of the fuel pump, rather than itself being accommodated within the fuel pump portion. The claimed arrangement has the significance of allowing for a more compact overall arrangement.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

JWD

July 18, 2007


JOSEPH DODGE
PRIMARY EXAMINER